

FIG. 1

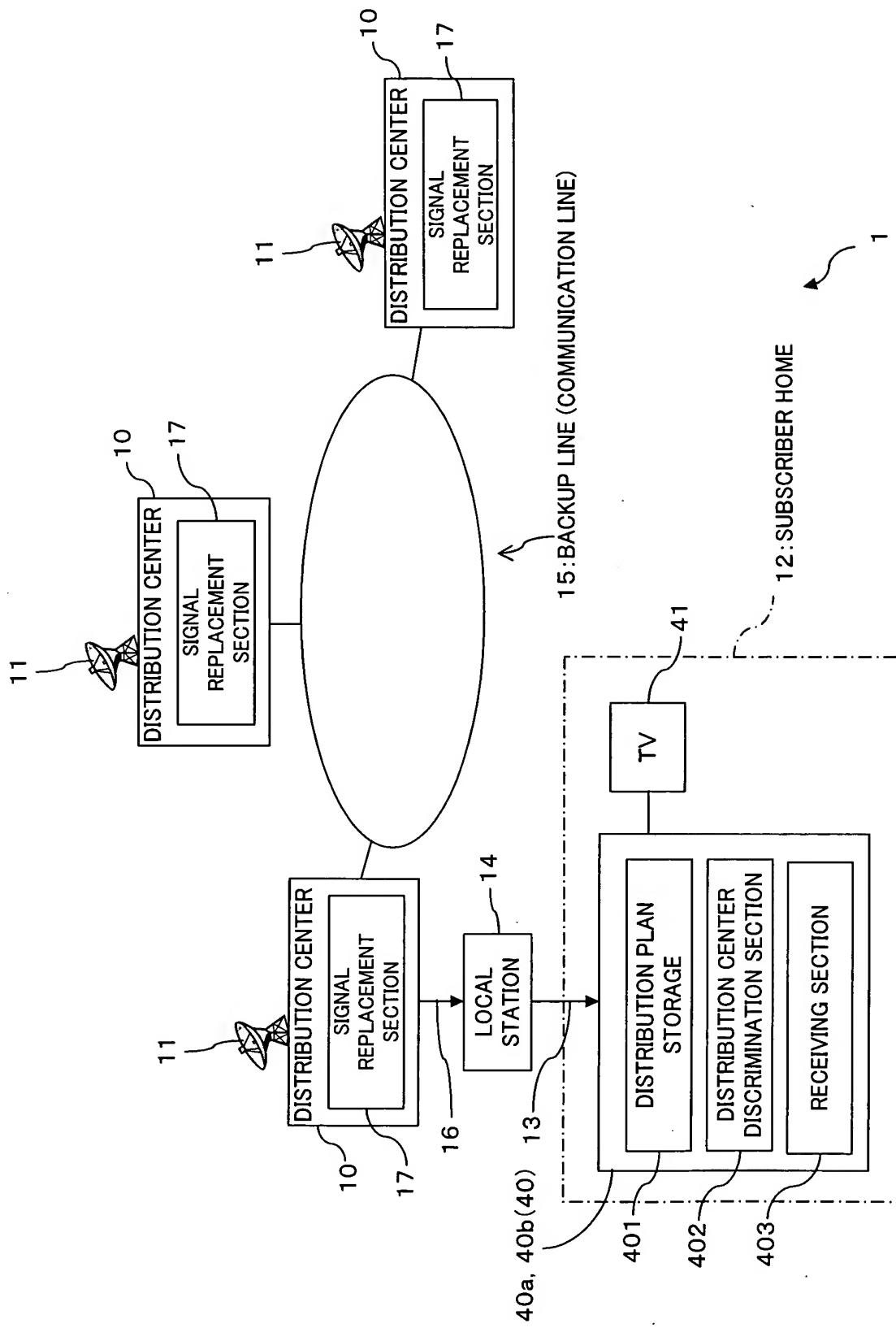


FIG. 2

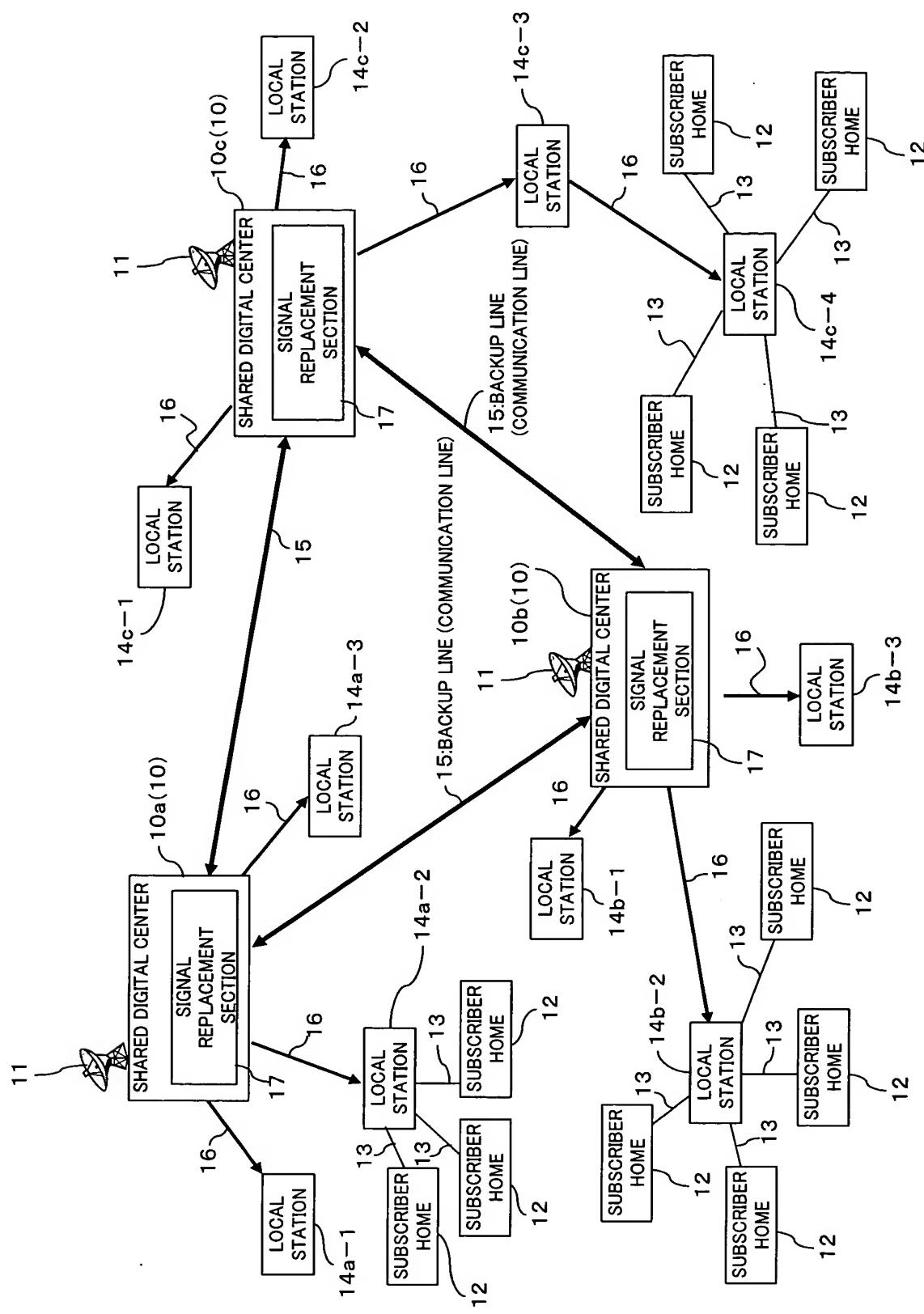


FIG. 3

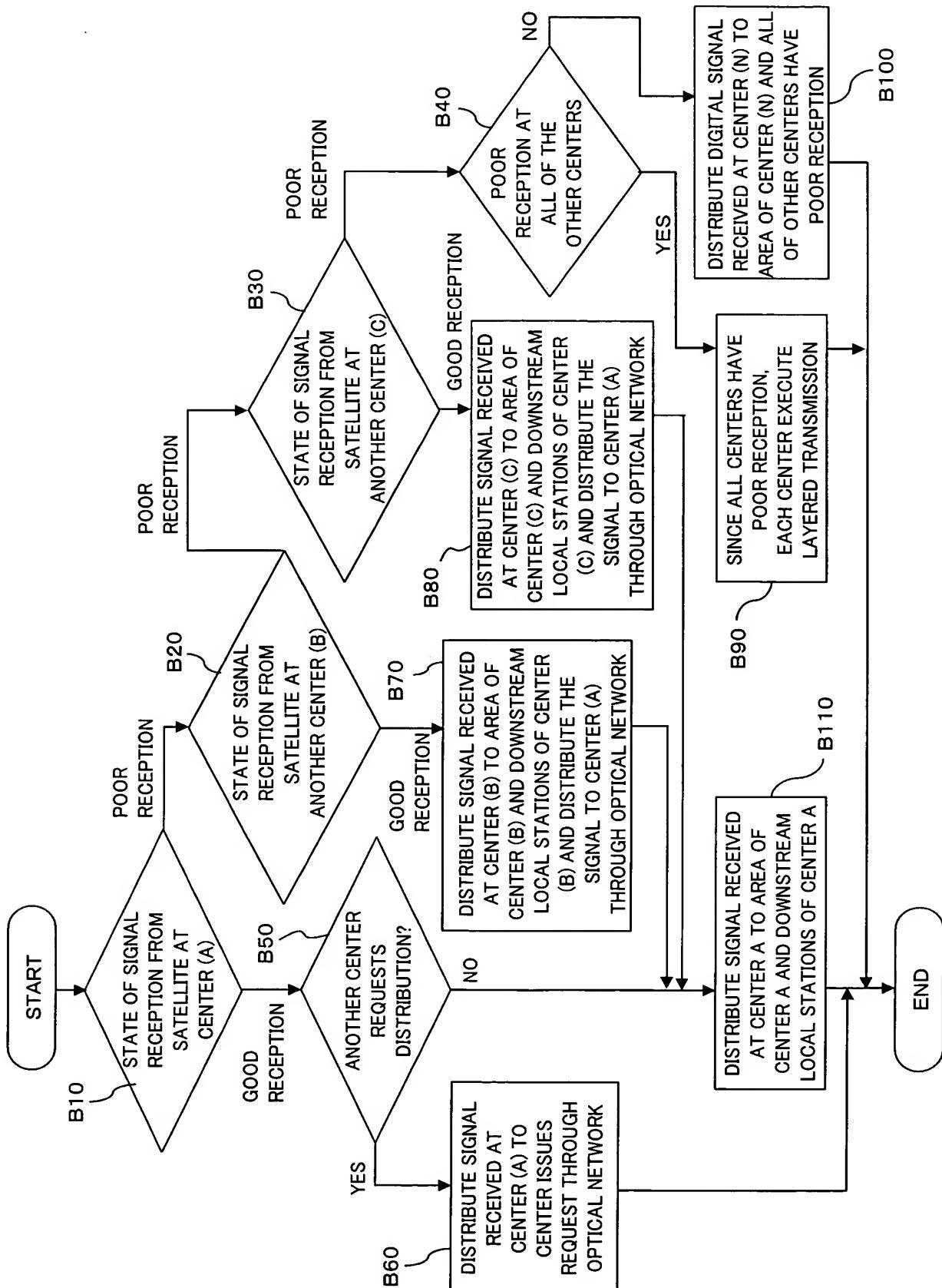


FIG. 4

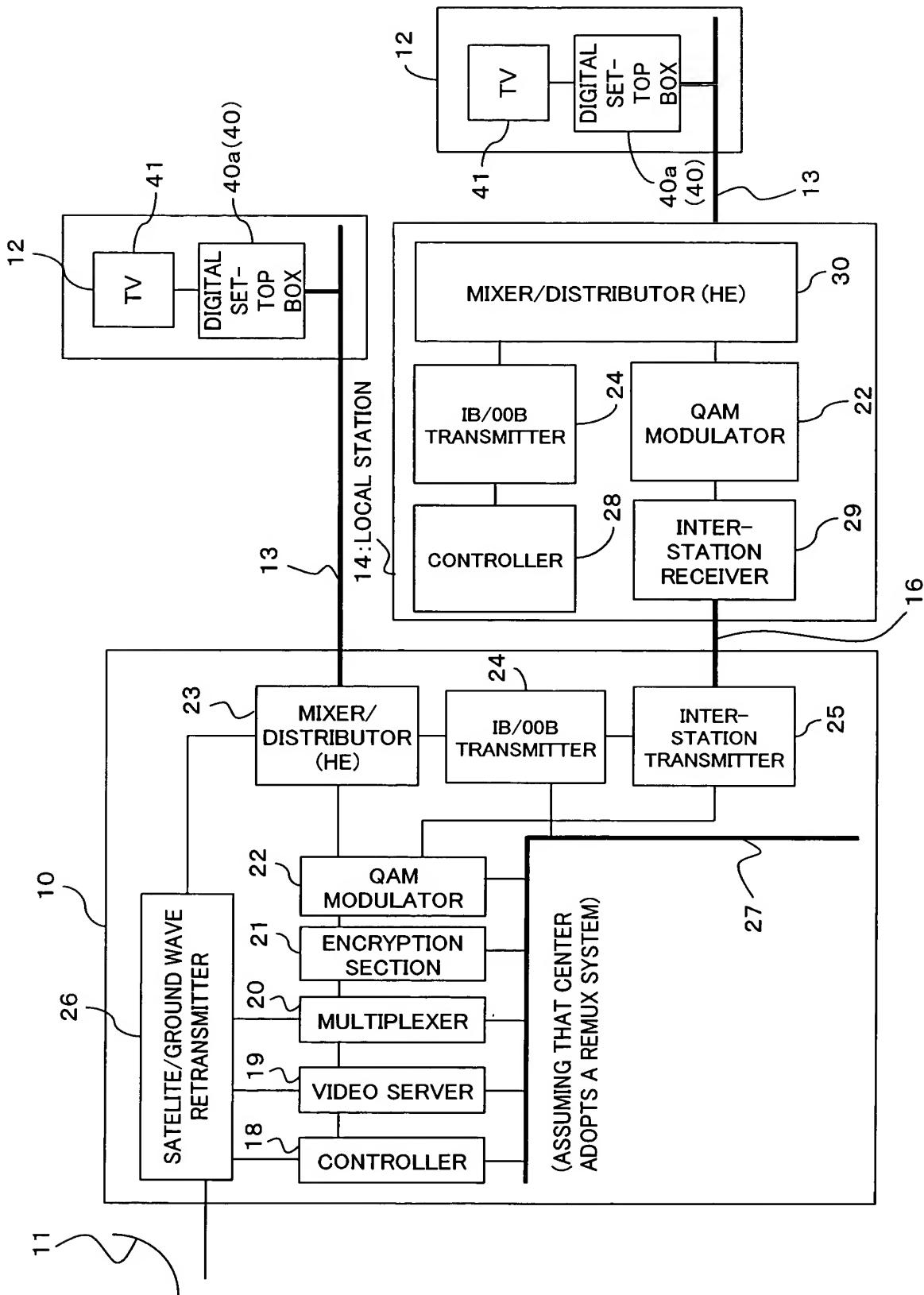


FIG. 5

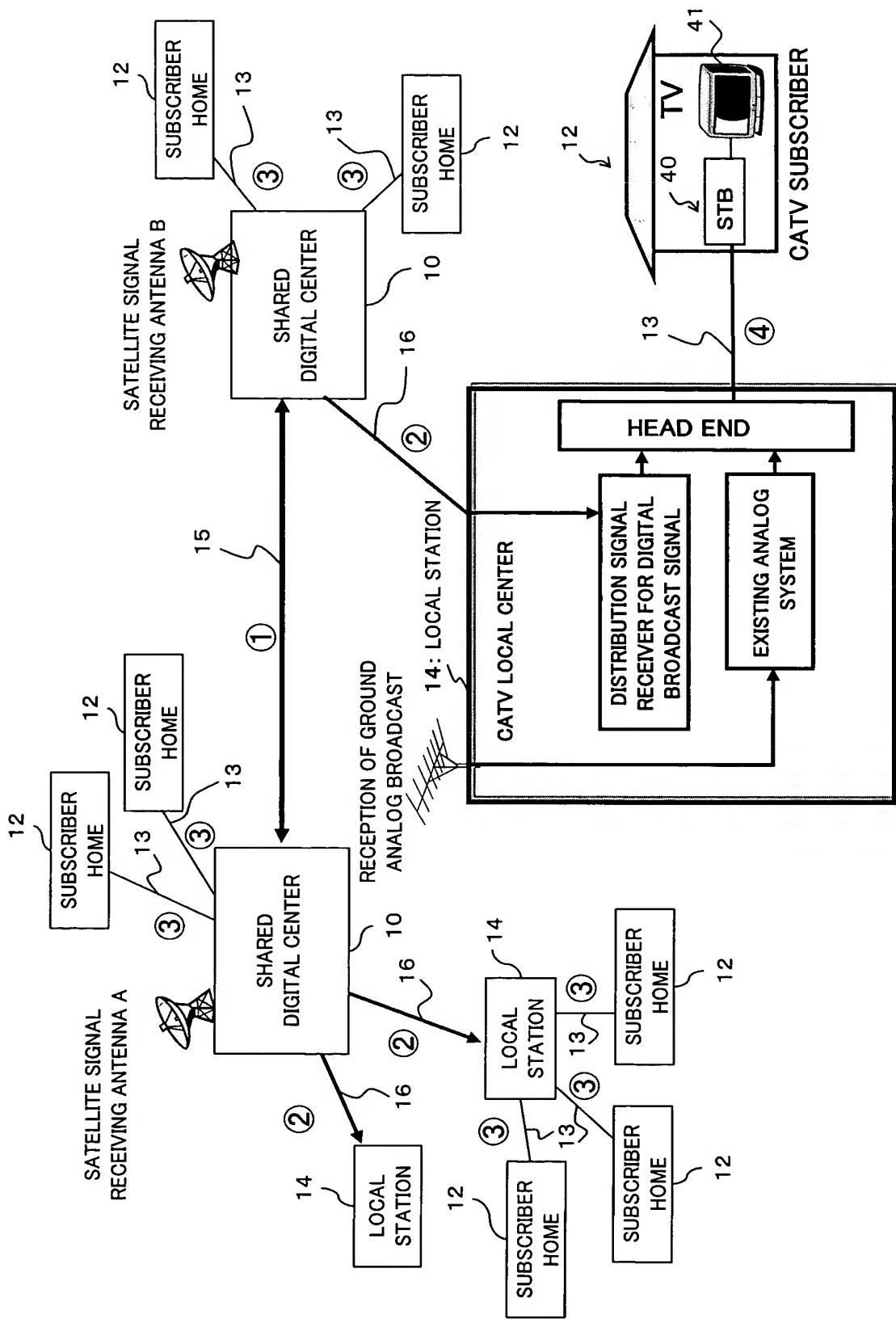


FIG. 6

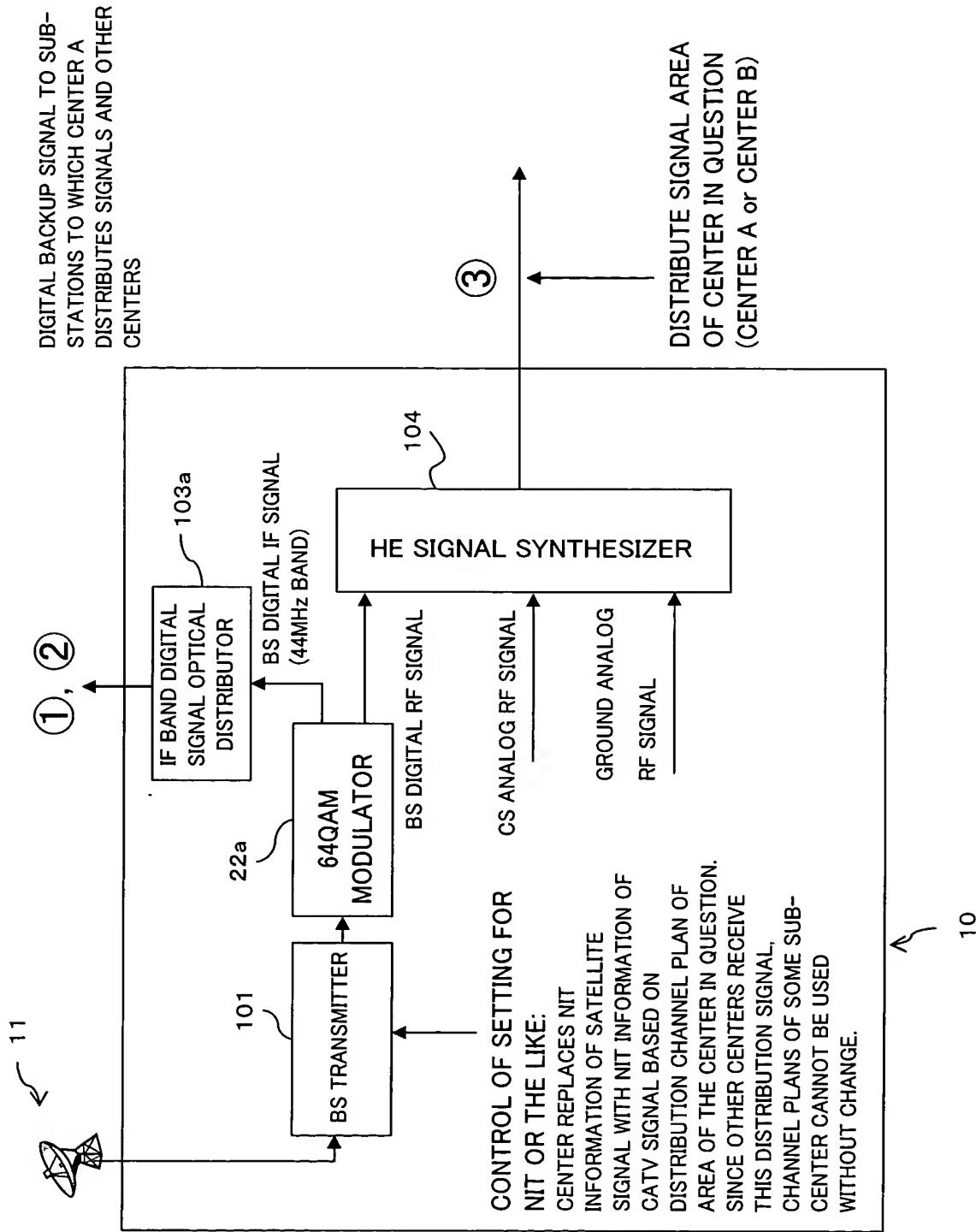


FIG. 7

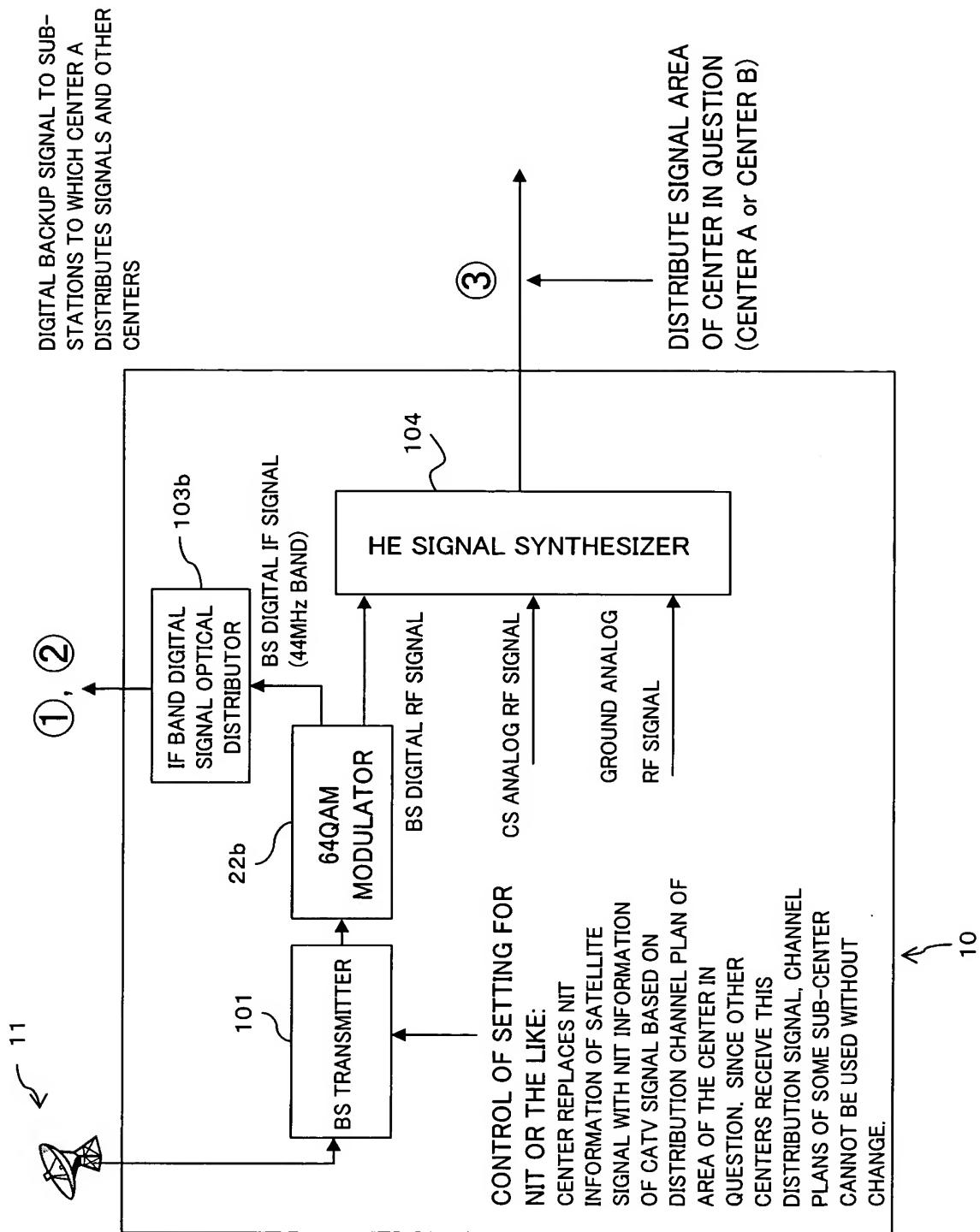


FIG. 8

TITLE: DIGITAL BROADCAST SIGNAL
DISTRIBUTION SYSTEM AND
SUBSCRIBER TERMINAL
INVENTORS: Masayuki ISHIZAKI
SERIAL NO.:
DOCKET NO.: 1075.1238

BS DIGITAL CHANNEL NAME	DISTRIBUTION CHANNEL OF CENTER B	SI/PSI
BS1	C32	NW-ID:04,TS-ID:01 S-ID:101,102 NIT:N32
BS2	C31	NW-ID:04,TS-ID:02 S-ID:121,122 NIT:N31
BS3	C34	NW-ID:04,TS-ID:03 S-ID:131,132 NIT:N34
BS4	C36	NW-ID:04,TS-ID:04 S-ID:141,142 NIT:N36
BS5	C37	NW-ID:04,TS-ID:05 S-ID:151,152 NIT:N37
BS6	C38	NW-ID:04,TS-ID:06 S-ID:161,162 NIT:N38
BS7	C40	NW-ID:04,TS-ID:07 S-ID:171,172 NIT:N40
BS8	C41	NW-ID:04,TS-ID:08 S-ID:181,182 NIT:N41

FIG. 9

EXAMPLES OF DISTRIBUTION CHANNEL OF CENTER B	BROADCAST SERVICE TYPE	CHANNEL NAME	NOTE
C25	CS ANALOG	SKY A	
C26	CS ANALOG	CHANNEL NECO	
C27	CS ANALOG	GAORA	
C28	CS ANALOG	SATELLITE THEATER	
C29	CS ANALOG	STAR CHANNEL	
C30	CS ANALOG	TOEI CHANNEL	
C31	BS DIGITAL	BS2	STB OBTAINS PROGRAM BASED ON RELATION BETWEEN S-ID AND NIT
C32	BS DIGITAL	BS1	STB OBTAINS PROGRAM BASED ON RELATION BETWEEN S-ID AND NIT
C33	CS ANALOG	KIDS STATION	
C34	BS DIGITAL	BS3	
C35	CS ANALOG	FAMILY THEATER	
C36	BS DIGITAL	BS4	STB OBTAINS PROGRAM BASED ON RELATION BETWEEN S-ID AND NIT
C37	BS DIGITAL	BS5	STB OBTAINS PROGRAM BASED ON RELATION BETWEEN S-ID AND NIT
C38	BS DIGITAL	BS6	STB OBTAINS PROGRAM BASED ON RELATION BETWEEN S-ID AND NIT
C39	CS ANALOG	BBC WORLD	
C40	BS DIGITAL	BS7	STB OBTAINS PROGRAM BASED ON RELATION BETWEEN S-ID AND NIT
C41	BS DIGITAL	BS8	STB OBTAINS PROGRAM BASED ON RELATION BETWEEN S-ID AND NIT
C42	CS ANALOG	CNN	
C43	CS ANALOG	FISHING VISION	

FIG. 10

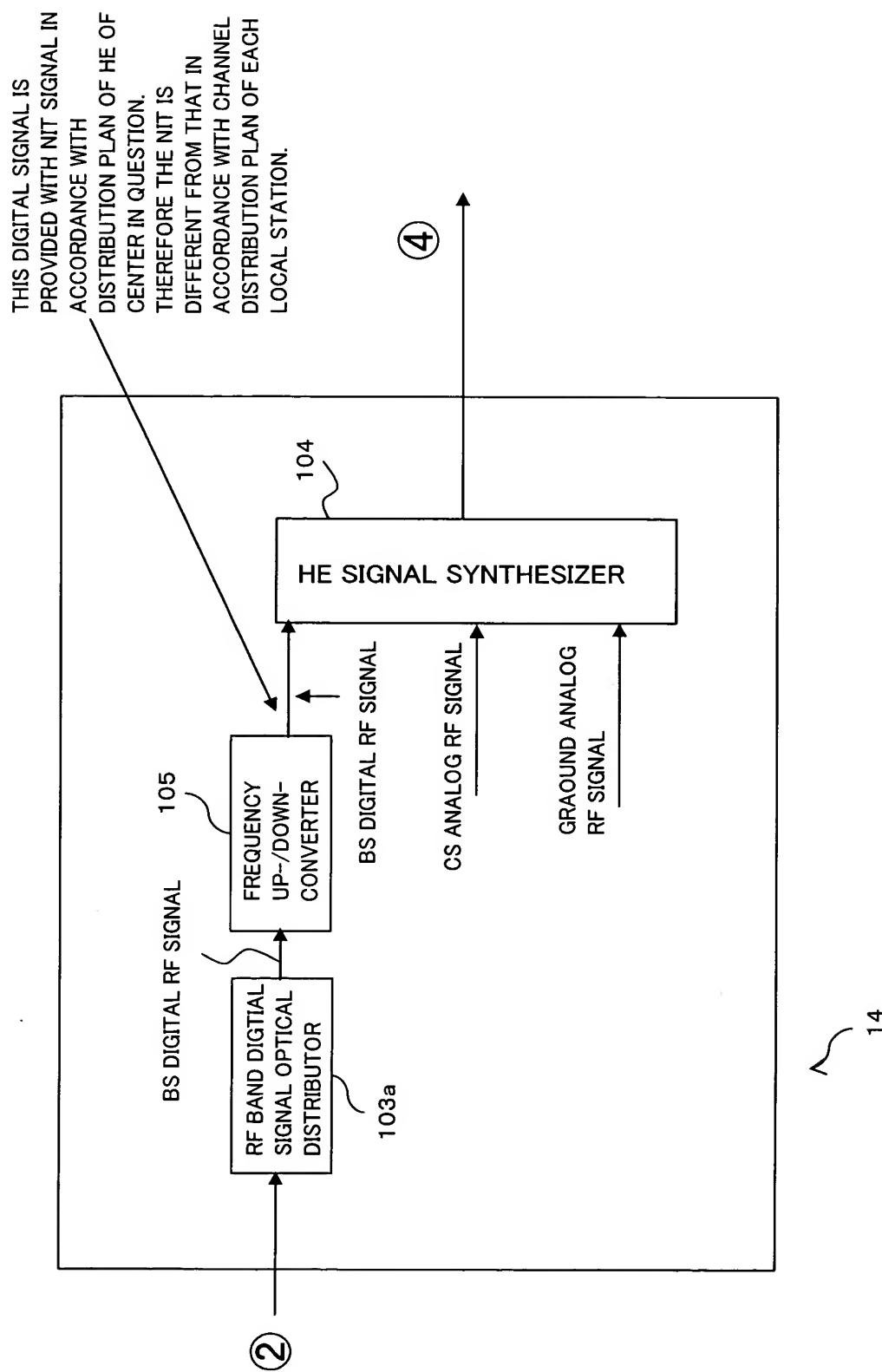


FIG. 11

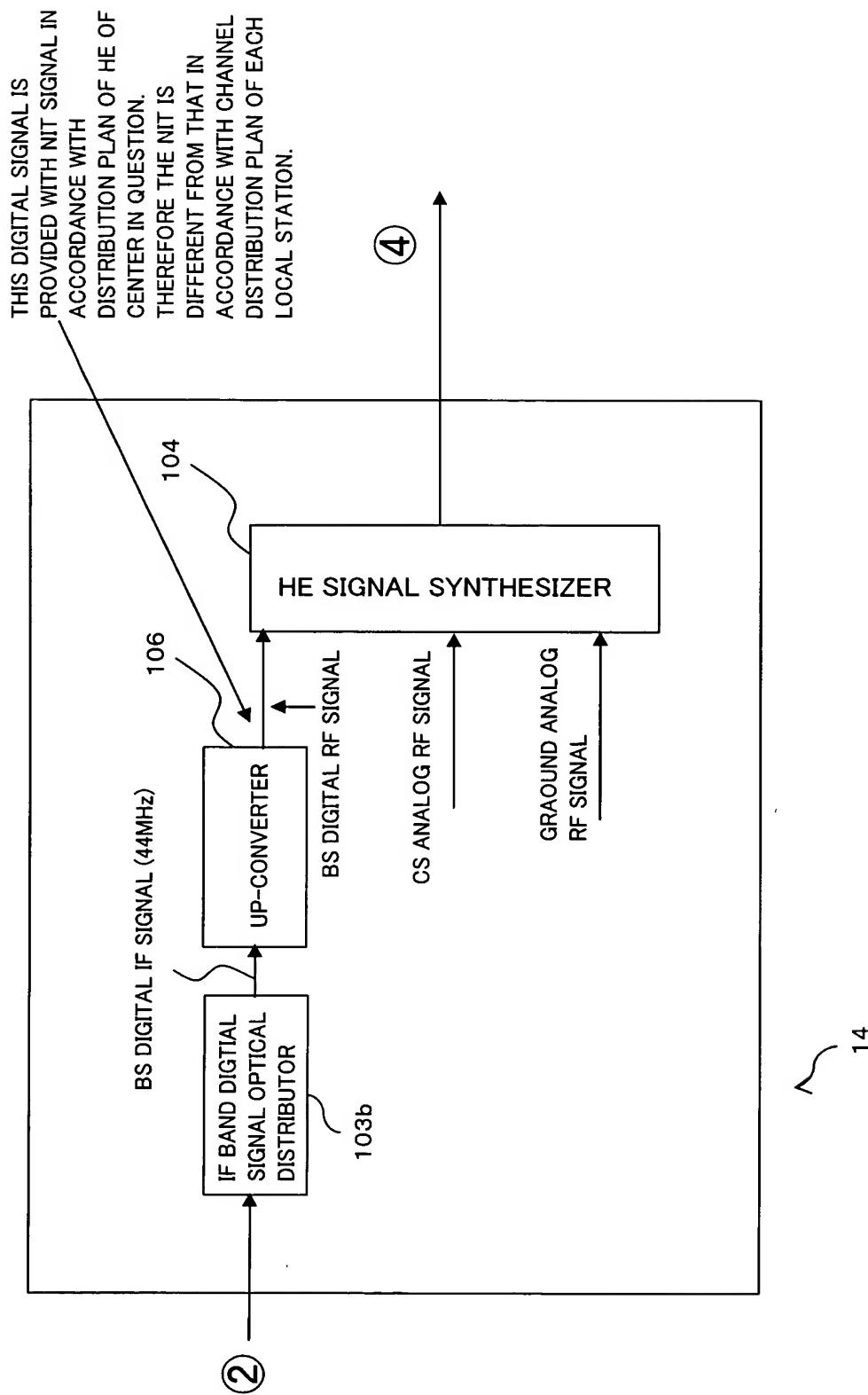


FIG. 12 (a)

EXAMPLES OF DISTRIBUTION CHANNEL OF CENTER B	BROADCAST SERVICE TYPE	CHANNEL NAME
C25	CS ANALOG	SKY A
C26	CS ANALOG	CHANNEL NECO
C27	CS ANALOG	GAORA
C28	CS ANALOG	SATELLITE THEATER
C29	CS ANALOG	STAR CHANNEL
C30	CS ANALOG	TOEI CHANNEL
C31	BS DIGITAL	BS2
C32	BS DIGITAL	BS1
C33	CS ANALOG	KIDS STATION
C34	BS DIGITAL	BS3
C35	CS ANALOG	FAMILY THEATER
C36	BS DIGITAL	BS4
C37	BS DIGITAL	BS5
C38	BS DIGITAL	BS6
C39	CS ANALOG	BBC WORLD
C40	BS DIGITAL	BS7
C41	BS DIGITAL	BS8
C42	CS ANALOG	CNN
C43	CS ANALOG	FISHING VISION

FIG. 12 (b)

EXAMPLES OF DISTRIBUTION CHANNEL OF CENTER B	BROADCAST SERVICE TYPE	CHANNEL NAME	CHANNEL WITH HATCHING REQUIRES NT REPLACEMENT
C25	CS ANALOG	C25	CS ANALOG CINEFIL IMAGICA
C26	CS ANALOG	C26	CS ANALOG COMING SOON TV
C27	CS ANALOG	C27	CS ANALOG STAR CHANNEL
C28	CS ANALOG	C28	CS ANALOG FAMILY THEATER
C29	CS ANALOG	C29	CS ANALOG CNN
C30	BS DIGITAL	C30	BS DIGITAL BS1 N32 → N30
C31	BS DIGITAL	C31	BS DIGITAL BS2 N31 = N31
C32	BS DIGITAL	C32	CS ANALOG SATELLITE THEATER N36 → N33
C33	CS ANALOG	C33	BS DIGITAL BS3 N34 = N34
C34	BS DIGITAL	C34	BS DIGITAL BS4 N37 → N36
C35	CS ANALOG	C35	CS ANALOG FISHING VISION
C36	BS DIGITAL	C36	BS DIGITAL BS5 N38 = N38
C37	BS DIGITAL	C37	CS ANALOG TRAVEL CHANNEL N40 → N39
C38	BS DIGITAL	C38	BS DIGITAL BS6 N41 = N41
C39	CS ANALOG	C39	BS DIGITAL BS7 ANIMATION THEATER X
C40	BS DIGITAL	C40	CS ANALOG BBC WORLD
C41	BS DIGITAL	C41	BS DIGITAL BS8
C42	CS ANALOG	C42	CS ANALOG CNN
C43	CS ANALOG	C43	CS ANALOG FISHING VISION

FIG. 13

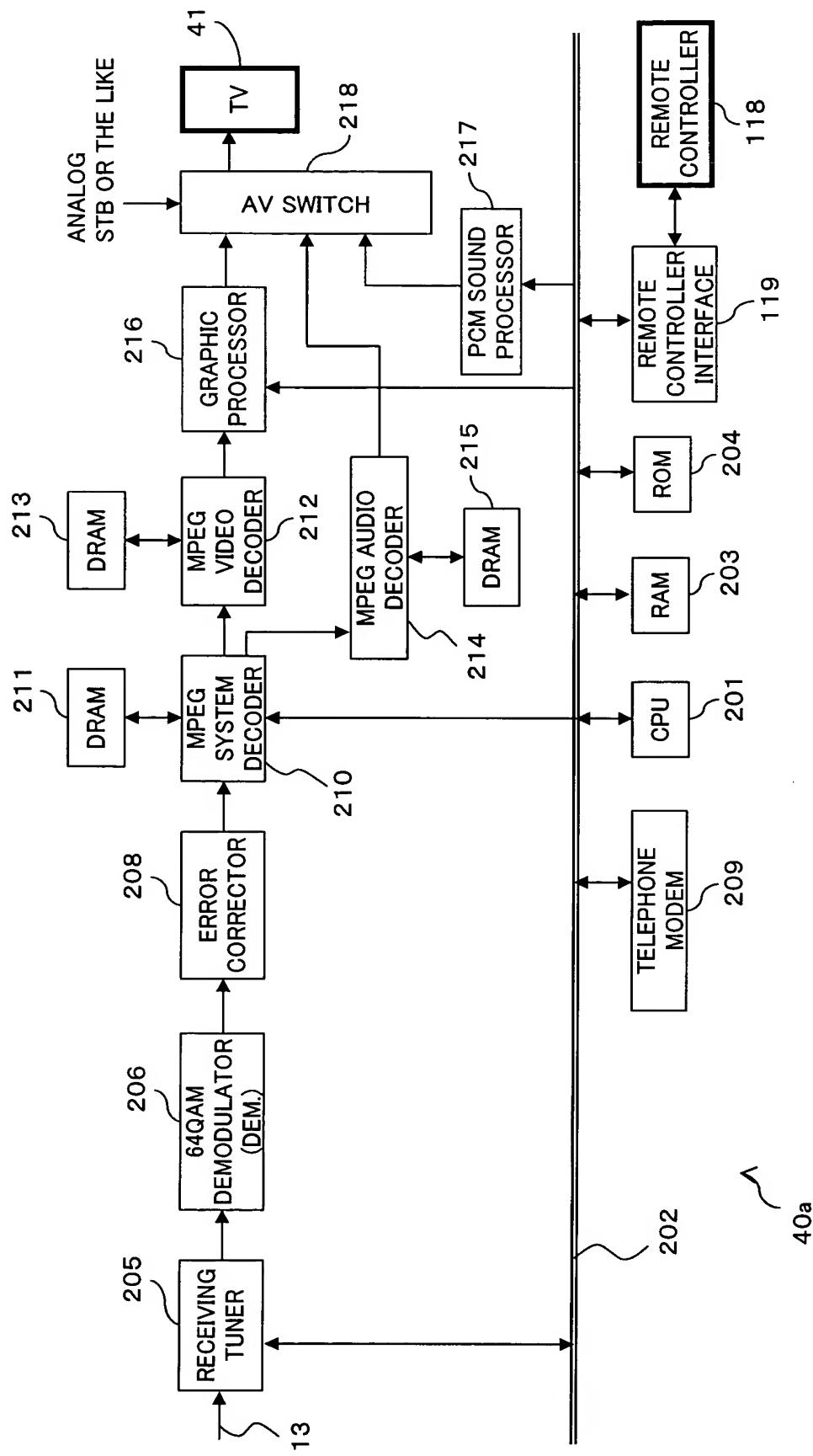


FIG. 14

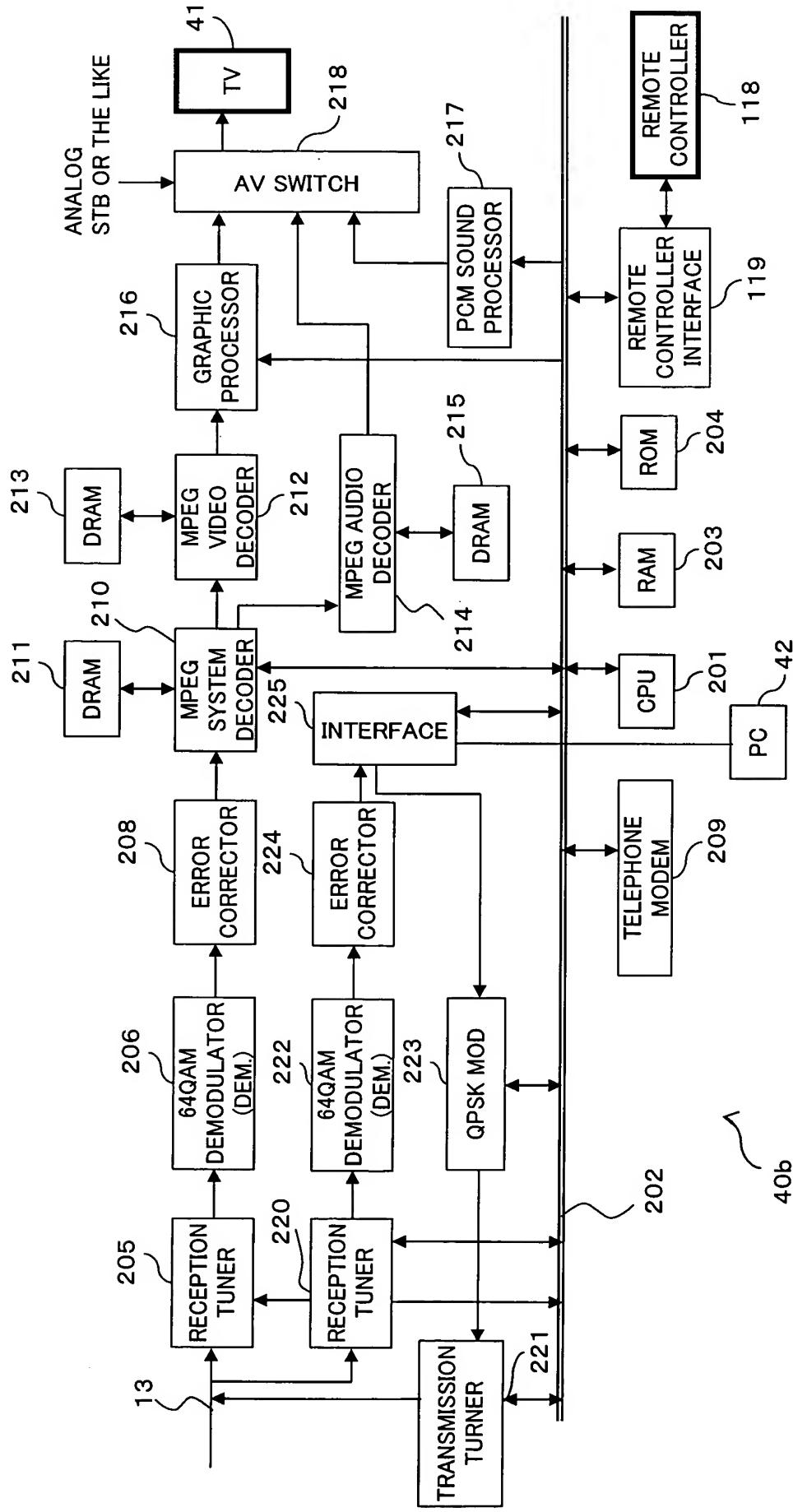


FIG. 15

UPSTREAM SIGNAL DOWNSTREAM SIGNAL

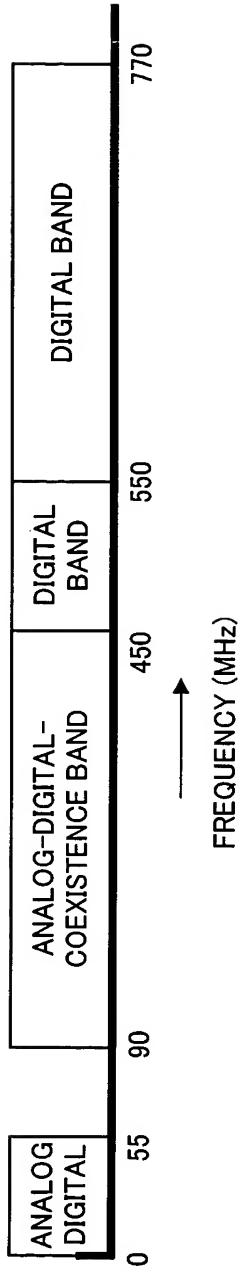


FIG. 16

UPSTREAM SIGNAL DOWNSTREAM SIGNAL

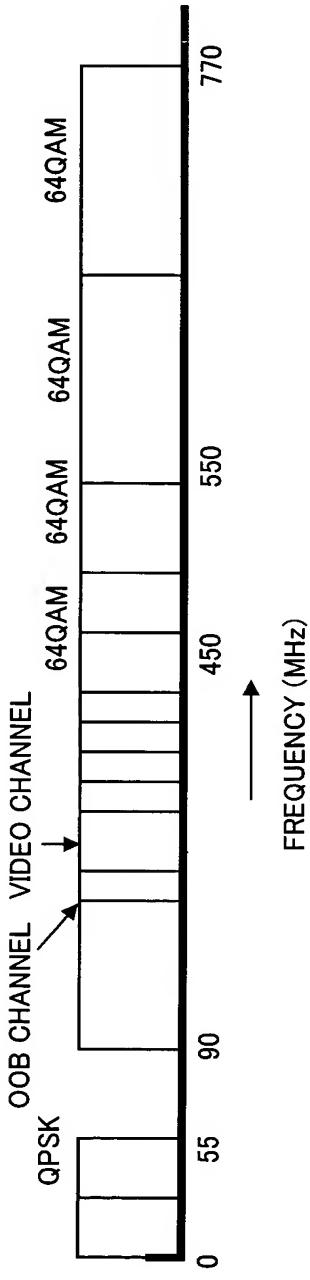


FIG. 17

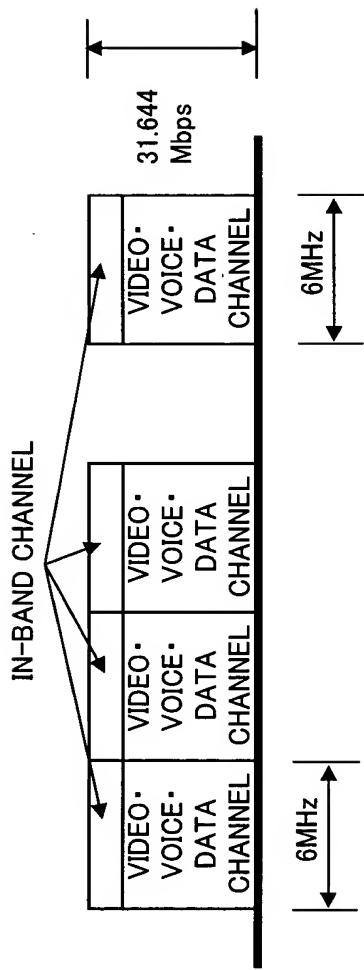
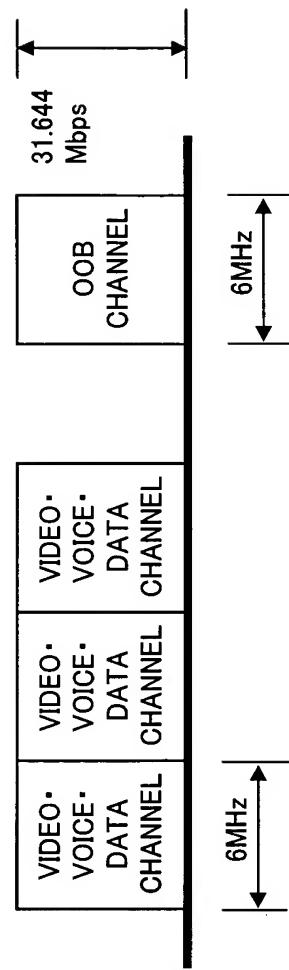


FIG. 18



TITLE: DIGITAL BROADCAST SIGNAL
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 INVENTORS: Masayuki ISHIZAKI
 SERIAL NO.:
 DOCKET NO.: 1075.1238

FIG. 19(a)

ch No.	DISTRIBUTION CENTER A HE ID NO.: 01	DISTRIBUTION CENTER B HE ID NO.: 02	DISTRIBUTION CENTER C HE ID NO.: 03
C32	DIGITAL CH NW-ID:04 TS-ID:01 S-ID:101, 102 NIT INFO.:N32		DIGITAL CH NW-ID:04 TS-ID:01 S-ID:101, 102 NIT INFO.:N32
C33		DIGITAL CH NW-ID:04 TS-ID:03 S-ID:131, 132 NIT INFO.:N33	DIGITAL CH NW-ID:04 TS-ID:03 S-ID:131, 132 NIT INFO.:N33
C34		DIGITAL CH NW-ID:06 TS-ID:01 S-ID:501, 502 NIT INFO.:N34	DIGITAL CH NW-ID:06 TS-ID:01 S-ID:501, 502 NIT INFO.:N34
C35		DIGITAL CH NW-ID:04 TS-ID:02 S-ID:121, 122 NIT INFO.:N35	DIGITAL CH NW-ID:04 TS-ID:02 S-ID:121, 122 NIT INFO.:N35
C36		DIGITAL CH NW-ID:04 TS-ID:03 S-ID:131, 132 NIT INFO.:N36	DIGITAL CH NW-ID:06 TS-ID:01 S-ID:501, 502 NIT INFO.:N34

FIG. 19(b)

ch No.	LOCAL CENTER PLAN	HE ID NO.: 10
C32	DIGITAL CH NW-ID:04 TS-ID:01 S-ID:101, 102 NIT INFO.:N32	
C33	DIGITAL CH NW-ID:06 TS-ID:01 S-ID:501, 502 NIT INFO.:N33	
C34	DIGITAL CH NW-ID:04 TS-ID:03 S-ID:131, 132 NIT INFO.:N34	
C35	DIGITAL CH NW-ID:04 TS-ID:02 S-ID:121, 122 NIT INFO.:N35	
C36		

FIG. 20

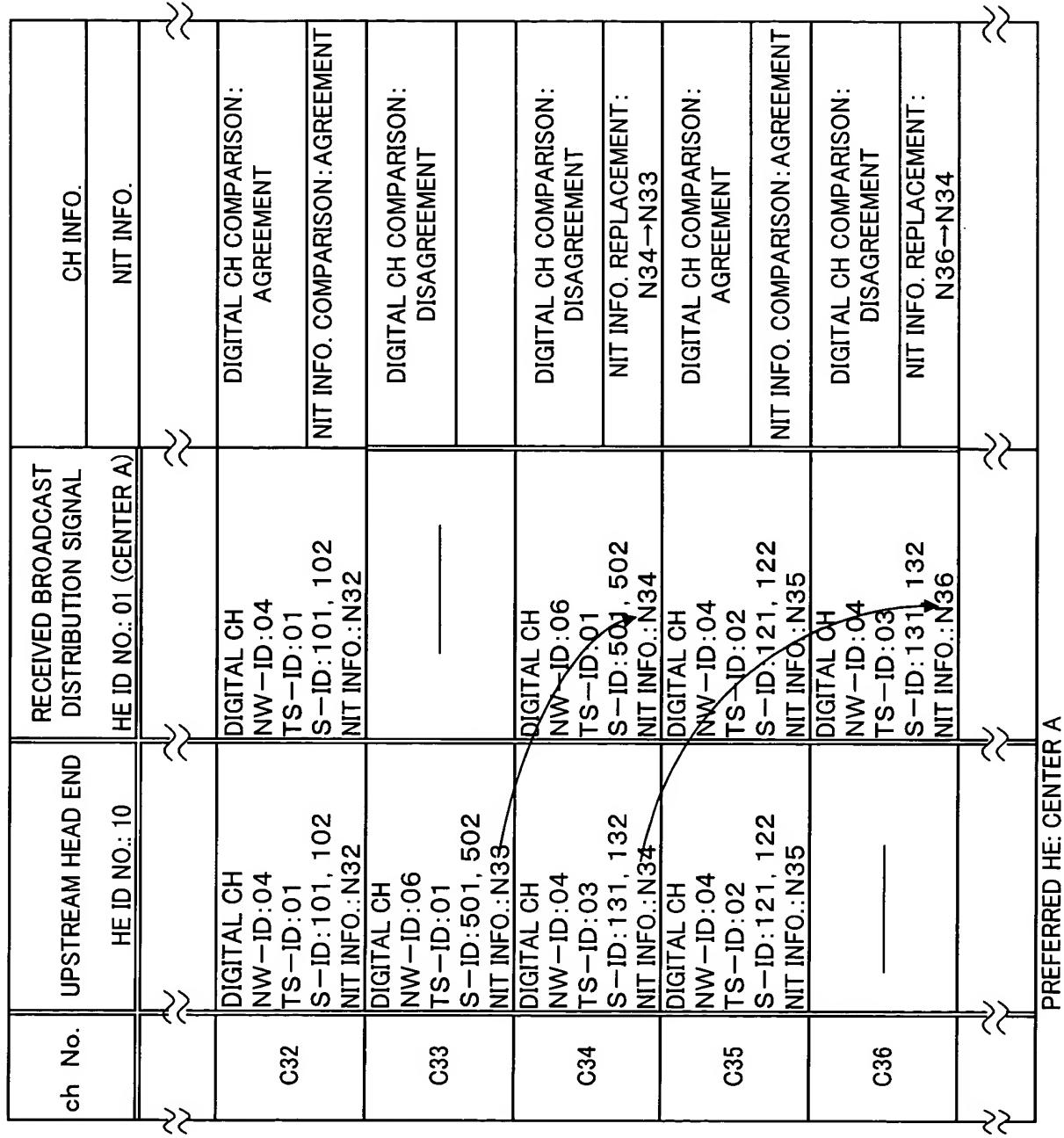


FIG. 21

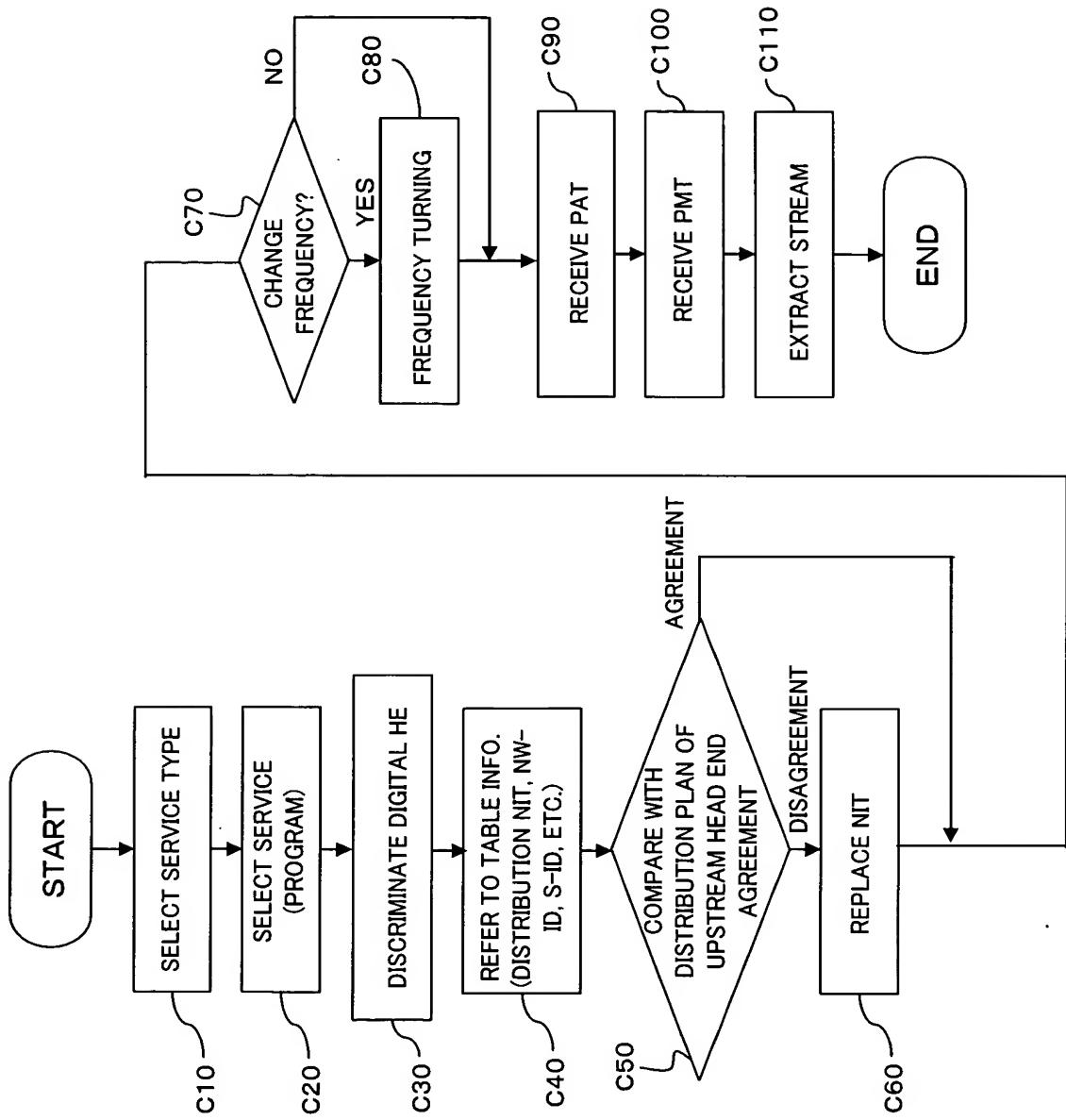


FIG. 22

EMM SECTION		CONFIGURATION		BYTE LENGTH
EMM SECTION HEADER	TABLE IDENTIFIER 0x84	(B25 INTERCHANGEABLE PART)	ID (RECEIVER ID)	
			LENGTH OF RELATIVE INFORMATION	6
EMM PAYLOAD 1		PROTOCOL NUMBER		1
		(B25 NON-INTERCHANGEABLE PART)	DESCRIPTOR CONFIGURATION (INCLUDING TOLL AGENCY ID, UPDATE NO., EXPIRATION DATE, AND ALTERNATION DETECTION)	VARIABLE
EMM PAYLOAD 2				
.	.			
EMM PAYLOAD n				
SECTION CRC				

FIG. 23

ITEM
PROTOCOL NO.
STATION ID CODE
WORK KEY ID
CLASSIFICATION
SERVICE TYPE
SCRAMBLE KEY
PROGRAM CLASSIFICATION
PROGRAM NO.
REGISTERED DISCRIMINATION TYPE
REFERENCE REGISTERED CODE
PAY-PER-VIEW FEE
SCRAMBLE EFFECT CONTROL
TIME (YEAR/MONTH/DATE/TIME)
PROGRAM INFORMATION CHANGE
ALTERNATION DETECTION
EXTENSION AREA
PROGRAM MESSAGE

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FIG. 24

ITEM
PROTOCOL NO.
STATION ID CODE
WORK KEY ID
CLASSIFICATION
SUBSCRIBER INFORMATION NO.
DECODER ID NO.
COMPULSORY ON/OFF
ALTERNATION DETECTION
EXTENSION AREA

TITLE: DIGITAL BROADCAST SIGNAL
DISTRIBUTION SYSTEM AND
SUBSCRIBER TERMINAL
INVENTORS: Masayuki ISHIZAKI
SERIAL NO.:
DOCKET NO.: 1075.1238

FIG. 25

ITEM
PROTOCOL NO.
DECODER ID CODE
CLASSIFICATION
CONTRACTUAL SERVICE
WORK KEY
WORK KEY ID
EXPIRATION DATE
STATION ID CODE
CONTRACTUAL TYPE
CASH IN ADVANCE
SUBSCRIBER INFORMATION NO.
UPDATE NO.
ALTERNATION DETECTION
EXTENSION AREA
MESSAGE TO SUBSCRIBER

FIG. 26
PRIOR ART

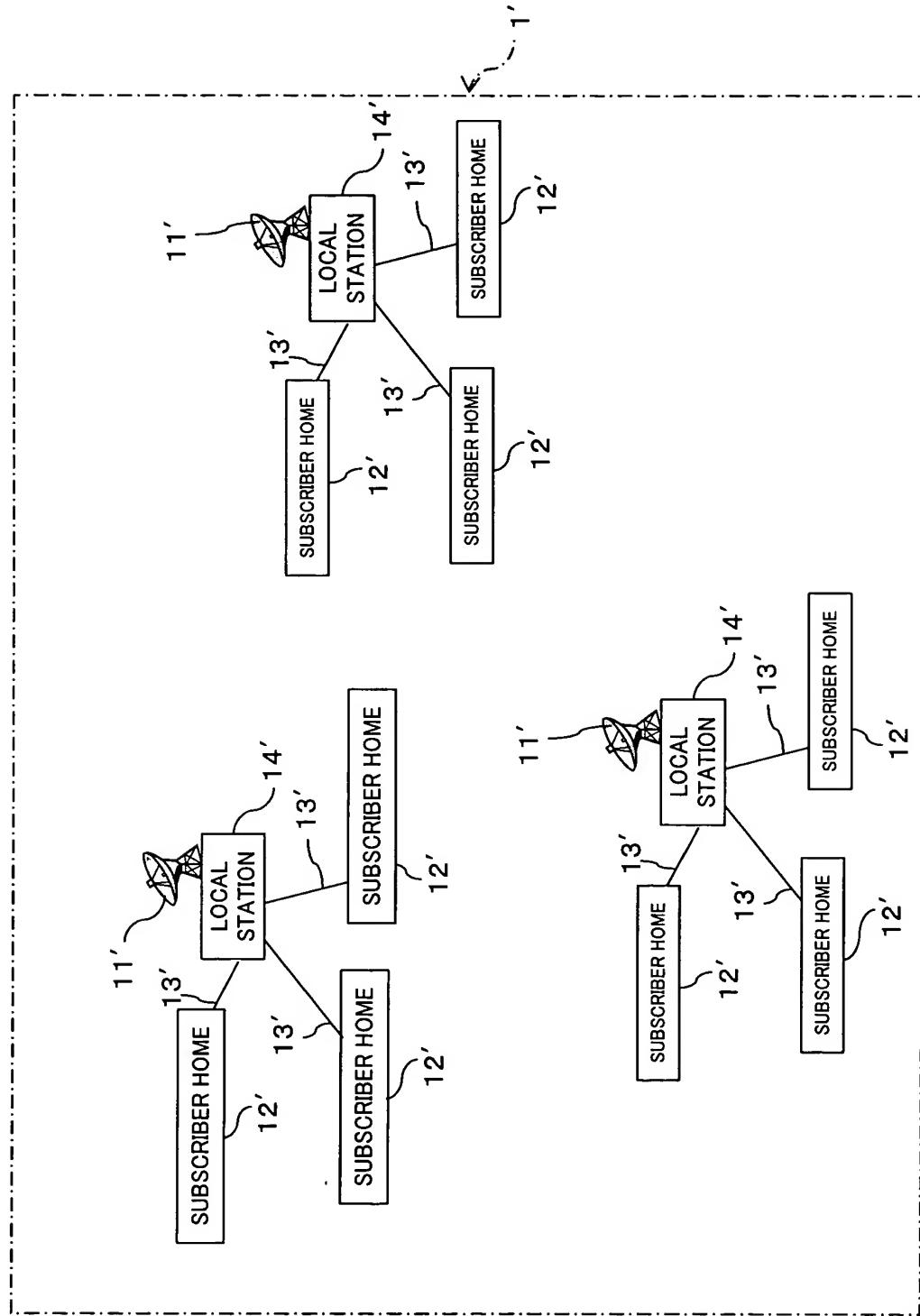


FIG. 27
PRIOR ART

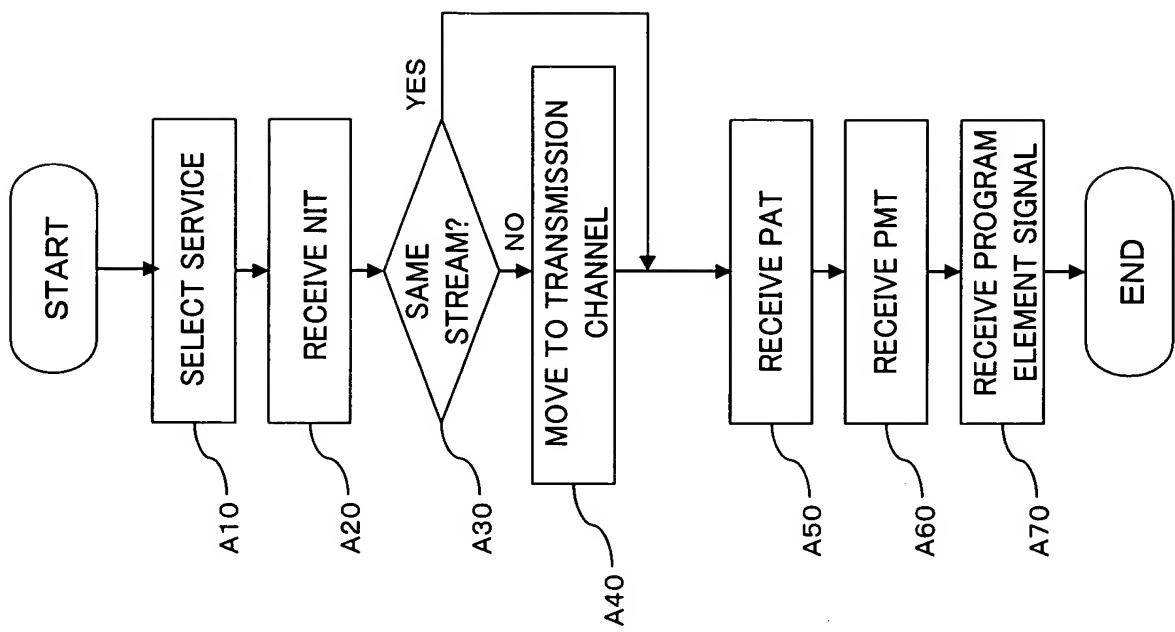


FIG. 28
PRIOR ART

ch No.	S-ID	NW-ID	TS-ID	CENTER DISTRIBUTION CHANNEL (ch)	CENTER FREQUENCY (MHz)
32	100,101	04	01	279	0
33		04	03	285	0
34	501,502	06	01	291	0
35		04	02	297	0
36		05	01	303	0
37		05	02	309	0
38		04	04	315	0
39		04	05	321	0
40		04	06	327	0
:	:	:	:	:	: